

Amendments to the Claims:

This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1 (Currently Amended): A bipolar battery, comprising:

a bipolar electrode in which a positive electrode is provided on one surface of a collector, and a negative electrode is provided on the other surface of the collector;

a gel electrolyte sandwiched between the positive electrode and the negative electrode;
and

a sealing layer which is provided between the collectors and surrounds a periphery of a single cell including the positive electrode, the negative electrode, and the gel electrolyte,

wherein the sealing layer is made of a first resin provided to be positioned on sides of the collectors and a non-conductive second resin which is sandwiched by the first resin and has a higher melting point than that of the first resin, and

the collectors and the sealing layer are thermally welded at a temperature between the melting points of the first resin and the second resin.

2 (Canceled)

3 (Currently Amended): A bipolar battery according to claim [[2]] 1,

wherein an electrode stacked body is formed by stacking a plurality of the bipolar electrodes, the gel electrolytes and the sealing layers, and

the melting point of the first resin becomes higher as it is positioned further outside the electrode stacked body.

4 (Currently Amended): A bipolar battery according to claim [[2]] 1,

Application No.: 10/681,157

wherein the first resin and the second resin are at least two resins, which have a higher melting point and a lower melting point than the temperature of the thermal welding, respectively, and which are selected from a group containing polypropylene, polyethylene, polyurethane, thermoplastic olefin rubber, polyamide-based resin, polytetrafluoroethylene, polyvinylidene fluoride, polystyrene and silicone rubber.

5 (Original): A bipolar battery according to claim 1,
wherein the positive electrode includes composite oxide of lithium and transition metal, and the negative electrode includes carbon or composite oxide of lithium and transition metal.

6 (Currently Amended): An assembled battery, comprising:

a plurality of bipolar ~~battery~~ batteries connected in series and/or in parallel,

the bipolar ~~battery~~ batteries, comprising:

a bipolar electrode in which a positive electrode is provided on one surface of a collector, and a negative electrode is provided on the other surface of the collector;

a gel electrolyte sandwiched between the positive electrode and the negative electrode; and

a sealing layer which is provided between the collectors and surrounds a periphery of a single cell including the positive electrode, the negative electrode, and the gel electrolyte,

wherein the sealing layer is made of a first resin provided to be positioned on sides of the collectors and a non-conductive second resin which is sandwiched by the first resin and has a higher melting point than that of the first resin, and

the collectors and the sealing layer are thermally welded at a temperature between the melting points of the first resin and the second resin.

Application No.: 10/681,157

7 (Currently Amended): A vehicle, comprising
an assembled battery including a plurality of bipolar ~~battery~~ batteries connected in series
and/or in parallel,

the bipolar ~~battery~~ batteries comprising:

a bipolar electrode in which a positive electrode is provided on one surface of a
collector, and a negative electrode is provided on the other surface of the collector;

a gel electrolyte sandwiched between the positive electrode and the negative
electrode; and

a sealing layer which is provided between the collectors and surrounds a
periphery of a single cell including the positive electrode, the negative electrode, and the
gel electrolyte,

wherein the sealing layer is made of a first resin provided to be positioned on
sides of the collectors and a non-conductive second resin which is sandwiched by the first
resin and has a higher melting point than that of the first resin, and

the collectors and the sealing layer are thermally welded at a temperature between
the melting points of the first resin and the second resin.

8 (Currently Amended): A method for manufacturing a bipolar battery, comprising:
forming a bipolar electrode in which a positive electrode is provided on one surface of a
collector and a negative electrode is provided on the other surface of the collector;

sandwiching a gel electrolyte between the positive electrode and the negative electrode,
and simultaneously sandwiching a sealing layer between the collectors in a periphery of a single
cell including the positive electrode, the negative electrode, and the gel electrolyte, the sealing
layer being made of a first resin provided to be positioned on sides of the collectors and a non-

Application No.: 10/681,157

conductive second resin which is sandwiched by the first resin and has a higher melting point than that of the first resin; and

heating and pressurizing a portion of the sealing layers from sides of end collectors in a state where a plurality of the bipolar electrodes, the gel electrolytes and the sealing layers are stacked on each other, at a temperature between the melting points of the first resin and the second resin.